United Nations ECE/TRANS/WP.29/GRE/77

Economic and Social Council

Distr.: General
16 May 2017

Original: English

Economic Commission for Europe

Inland Transport Committee

World Forum for Harmonization of Vehicle Regulations

Working Party on Lighting and Light-Signalling

Seventy-seventh session
Geneva, 4-7 April 2017

Report of the Working Party on Lighting and Light-Signalling on its seventy-seventh session

Contents

		Paragraphs	*Page*
I.	Attendance	1	3
II.	Adoption of the agenda (agenda item 1)	2-4	3
III.	1998 Agreement - Global Technical Regulations: Development (agenda item 2)	5	3
IV.	1997 Agreement – Rules: Development (agenda item 3)	6	3
V.	Simplification of lighting and light-signalling Regulations (agenda item 4)	7-10	4
VI.	Regulations Nos. 37 (Filament lamps), 99 (Gas discharge light sources), 128 (Light emitting diodes light sources) and the Consolidated Resolution on the common specifications of light source categories (agenda item 5)	11-16	4
VII.	Regulation No. 48 (Installation of lighting and light-signalling devices) (agenda item 6)	17-21	5
	A. Proposals for amendments to the 05 and 06 series of amendments	17-20	5
	B. Other proposals for amendments to Regulation No. 48	21	6
VIII.	Other Regulations (agenda item 7)	22-28	6
	A. Regulation No. 6 (Direction indicators) and Regulation No. 50 (Position, stop, direction indicators lamps for mopeds and motorcycles)	22	7
	B. Regulation No. 10 (Electromagnetic compatibility)	23	7
	C. Regulation No. 53 (Installation of lighting and light-signalling devices for L_3 vehicles)	24-26	7

GE.17-07746(E)

1707746

Please recycle

	D. Regulation No. 112 (Headlamps emitting an asymmetrical passing-beam) ...	27	8
	E. Regulation No. 123 (Adaptive front-lighting systems (AFS)) ...	28	8
IX.	Other business (agenda item 8) ...	29-34	8
	A. Amendments to the Convention on Road Traffic (Vienna, 1968) ...	29	8
	B. Decade of action for road safety 2011-2020 ...	30	8
	C. Development of the International Whole Vehicle Type Approval ...	31-33	8
	D. Phantom light and colour washout ...	34	9
X.	New business and late submissions (agenda item 9) ...	35-36	9
XI.	Direction of future work of GRE (agenda item 10) ...	37	9
XII.	Provisional agenda for the next session (agenda item 11) ...	38	9
Annexes			
I.	List of informal documents considered during the session ...		10
II.	Adopted amendments to the 06 series of amendments to Regulation No. 48 (para. 19 of the report)		12
III.	Adopted amendment proposals to Regulations Nos. 6, 48 and 50 concerning direction indicators with sequential activation (para. 22 of the report) ...		14
IV.	Adopted amendments on light sources to Regulations Nos. 4, 6, 7, 19, 23, 38, 48, 50, 77, 87, 91, 98, 112, 113, 119 and 123, based on ECE/TRANS/WP.29/GRE/2017/7 (para. 32 of the report) ...		18
V.	Adopted proposal for the 02 series of amendments to Regulation No. 113, based on ECE/TRANS/WP.29/2017/39 (para. 35 of the report) ...		23
VI.	GRE informal groups ...		27

I. Attendance

1. The Working Party on Lighting and Light-Signalling (GRE) held its seventy-seventh session from 4 to 7 April 2017 in Geneva, under the chairmanship of Mr. M. Loccufier (Belgium). Experts from the following countries participated in the work according to Rule 1 (a) of the Rules of Procedure of the World Forum for Harmonization of Vehicle Regulations (WP.29) (TRANS/WP.29/690, ECE/TRANS/WP.29/690/Amends. 1 and 2): Austria; China; Czech Republic; Finland; France; Germany; Hungary; India; Italy; Japan; Latvia; Luxemburg; Netherlands; Norway; Poland; Republic of Korea; Russian Federation; Spain; United Kingdom of Great Britain and Northern Ireland (UK) and Viet Nam. An expert from the European Commission (EC) participated. Experts from the following non-governmental organizations also took part in the session: European Association of Automotive Suppliers (CLEPA); International Automotive Lighting and Light Signalling Expert Group (GTB); International Electrotechnical Commission (IEC); International Motorcycle Manufacturers Association (IMMA); International Organization of Motor Vehicle Manufacturers (OICA); Society of Automotive Engineers (SAE).

II. Adoption of the agenda (agenda item 1)

Documentation: ECE/TRANS/WP.29/GRE/2017/1,
Informal documents GRE-77-01 and GRE-77-18

2. GRE considered and adopted the agenda proposed for the seventy-seventh session (ECE/TRANS/WP.29/GRE/2017/1), as reproduced in GRE-77-01 together with the informal documents distributed during the session.

3. The list of informal documents is contained in Annex I to the report. The list of GRE informal groups is reproduced in Annex VI to the report.

4. GRE took note of the highlights of the November 2016 and March 2017 sessions of WP.29 and the official document submission deadline of 28 July 2017 for the October 2017 session of GRE (GRE-77-18).

III. 1998 Agreement - Global Technical Regulations: Development (agenda item 2)

5. The expert of GTB pointed out the growing interest in harmonization of lighting and light-signalling norms among countries which are not Contracting Parties to the 1958 Agreement, in particular, China, India and the United States of America. According to him, Stage 2 of the ongoing process for simplification of the lighting and light-signalling Regulations could also trigger development of a new Global Technical Regulation (GTR), for example, on the adaptive driving beam. The experts from EC and SAE supported this view and called for cooperation with the US National Highway Traffic Safety Administration.

IV. 1997 Agreement – Rules: Development (agenda item 3)

6. No new information was reported under this agenda item.

V. Simplification of lighting and light-signalling Regulations (agenda item 4)

Documentation: Informal documents GRE-77-05, GRE-77-07 and GRE-77-32

7. On behalf of the Informal Working Group 'Simplification of the Lighting and Light-Signalling Regulations' (IWG SLR), the expert from GTB reported on the progress and schedule of IWG SLR (GRE-77-32). GRE noted that the three new draft Regulations on Light-Signalling Devices (LSD), Road Illumination Devices (RID) and Retro-Reflective Devices (RRD) would be officially submitted to the next session of GRE. The expert of EC urged GRE experts to study these comprehensive documents and to provide their comments and contributions to IWG SLR without delay, so as to have a smooth adoption of the draft Regulations at the next session.

8. GRE took note of a first draft LSD Regulation prepared by IWG SLR (GRE-77-05). GRE commended IWG SLR on the quality of this document and delivered some preliminary remarks on its content. In particular, GRE requested additional explanations on how the amendment process, including new series of amendments and approval markings, would work for the new LSD Regulation which covers many different devices.

9. GTB invited GRE to provide guidance on how to treat the GTB proposals submitted to the previous session of GRE and deferred to the present session for final decision, in the context of drafting the three new Regulations (GRE-77-07). These proposals included the introduction of light emitting diode (LED) substitute light sources in the LSD Regulation (see para. 13 below), introduction of LED light sources in the RID Regulation (para. 15 below) and simplification of the conformity of production (CoP) requirements for adaptive front-lighting systems (AFS) (para. 28 below). GRE agreed to introduce the proposals, if adopted, into the drafts of the new RID and LSD Regulations so that the whole package would be formally submitted to the next session of GRE.

10. The expert from GTB briefly presented his views on Stage 2 of the SLR process and pointed out that it would provide a unique opportunity for China to harmonize their ongoing national simplification process with the SLR requirements.

VI. Regulation Nos. 37 (Filament lamps), 99 (Gas discharge light sources), 28 (Light emitting diodes light sources) and the Consolidated Resolution on the common specification of light source categories (agenda item 5)

Documentation: ECE/TRANS/WP.29/2016/111, ECE/TRANS/WP.29/GRE/2017/2, ECE/TRANS/WP.29/GRE/2017/3, ECE/TRANS/WP.29/GRE/2017/4, ECE/TRANS/WP.29/GRE/2017/5, ECE/TRANS/WP.29/GRE/2017/6, Informal documents GRE-77-02, GRE-77-03, GRE-77-04, GRE-77-07, GRE-77-12, GRE-77-13, GRE-77-14, GRE-77-15, GRE-77-22, GRE-77-29

11. GRE took note that WP.29, at its November 2016 session, adopted the Consolidated Resolution on the common specification of light source categories (ECE/TRANS/WP.29/2016/111) and assigned it number R.E.5. This Resolution would enter into force in June 2017, simultaneously with the corresponding amendments to Regulations Nos. 37, 99 and 128.

12. The expert from GTB presented proposals for amendments to Regulation No. 128 and to the Consolidated Resolution (R.E.5) which introduce requirements and test specifications for light emitting diode (LED) substitute light sources as well as several new LED substitute light source categories (ECE/TRANS/WP.29/GRE/2017/2, ECE/TRANS/WP.29/GRE/2017/3, GRE-77-02, GRE-77-03, GRE-77-15, GRE-77-22). These proposals were accompanied by collective amendments to Regulations Nos. 48, 53, 74, 86 with the requirements for LED substitute light sources (ECE/TRANS/WP.29/GRE/2017/4). The expert from GTB explained that the proposed approach was based on the following principles:

- Lamps may be approved with a filament light source and its corresponding LED substitute light source, when fitting in the same holder, and providing an equivalent photometric performance;
- Lamps equipped with LED substitute light sources should be tested with both the filament lamp and the LED substitute light source.

13. GRE also noted the proposal by GTB to introduce requirements for the use of LED substitute light sources in the new LSD Regulation (GRE-77-15).

14. The expert of Germany commented on the GTB proposals (GRE-77-29). GRE generally advocated the idea of allowing for LED substitute lights sources, given their high energy efficiency. At the same time, the experts from France, Germany, Netherlands, Spain and UK pointed out the risks associated with the improper use of aftermarket LED products in lamps, which were not approved for such light sources, and called for developing a set of preventive measures, including raising public awareness and giving warnings to consumers. Several technical issues were also questioned, in particular, the proposed G-marking for LEDs with a correlated colour temperature below 3,000 K. GRE invited GTB to address the comments received and agreed to continue the consideration of this issue at the next session on the basis of revised documents to be prepared by GTB.

15. The expert from GTB presented proposals for amendments to Regulation No. 128 and to the Consolidated Resolution (R.E.5) that introduce a new LED light source category for forward lighting applications (ECE/TRANS/WP.29/GRE/2017/5, ECE/TRANS/WP.29/GRE/2017/6, GRE-77-04, GRE-77-12, GRE-77-13). He explained that GTB had abandoned the concept of "thermal grade" and instead proposed the introduction of a maximum test temperature to ensure interchangeability between approved light sources from different manufacturers. GRE also noted the proposal by GTB to incorporate LED light sources into the new RID Regulation (GRE-77-14).

16. The expert from UK requested more time to study the proposals. The expert of Germany proposed modifications to the notion of "maximum test temperature". GRE decided to revert to this issue at the next session and invited GRE experts to study the proposals and to send their comments to GTB and IWG SLR.

VII. Regulation No. 48 (Installation of lighting and light-signalling devices) (agenda item 6)

A. Proposals for amendments to the 05 and 06 series of amendments

Documentation: ECE/TRANS/WP.29/GRE/2016/24,
Informal documents GRE-77-06-Rev.1, GRE-77-10-Rev.1, GRE-77-16, GRE-77-20, GRE-77-23, GRE-77-24, GRE-77-25

17. The expert from GTB proposed to clarify inconsistencies and to correct the terminology in the 05 and 06 series of amendments to Regulation No. 48 (ECE/TRANS/WP.29/GRE/2016/24). GRE generally supported the proposals, but requested GTB, in cooperation with OICA, to extend them also to the 03 and 04 series of amendments and to submit a revised document for consideration at the next session.

18. The expert from OICA introduced a revised proposal with a view to defining and describing the operation of the external status indicators for vehicle alarm systems, alarm systems and immobilizers, as contained in Regulations Nos. 97 and 116 (GRE-77-25). Several experts reiterated their concerns that the proposed text, on the one hand, stated that such indicators were not considered lamps within the scope of Regulation No. 48, but, on the other hand, introduced requirements for the indicators. In the absence of a consensus on the issue, the Chair decided to postpone its consideration to the next session.

19. The experts from the Czech Republic, Italy and Japan proposed amendments to the provisions on automatic switching between daytime running lamps (DRL) and headlamps in the 06 series of amendments to Regulation No. 48 (GRE-77-06-Rev.1 and GRE-77-10-Rev.1). The proposals received comments from the expert of the Russian Federation (GRE-77-23 and GRE-77-24). GRE realized that the proposed amendments addressed two different issues: (i) deletion of several subparagraphs that were transitional provisions only for the 05 series of amendments, but were kept by mistake in the 06 series of amendments as well, and (ii) clarification of the requirements for automatic switching from DRL to headlamps. With regard to (i), GRE adopted the proposals for amendments, as contained in Annex II, and requested the secretariat to submit them to WP.29 and AC.1 for consideration and vote at their November 2017 sessions. Concerning (ii), GRE agreed to establish a task force to consider this issue in detail. The experts from the Netherlands and OICA volunteered to act as, respectively, Chair and Secretary of the task force.

20. The expert from GTB proposed to clarify the requirements for tell-tales indicating a failure of different lamps (GRE-77-16). The expert from OICA introduced a proposal to update paragraph 6.9.8. with the common current technologies, where the instrument panel remains permanently illuminated whenever the engine is running (GRE-77-20). The experts from Italy, Netherlands and UK indicated their support to GRE-77-16, but were of the view that the wording in GRE-77-20 would need improvement. The experts of Germany and SAE pointed out that both proposals had a link to Regulation No. 121 and that the Working Party on General Safety (GRSG), dealing with this Regulation, should be informed. Finally, GRE invited GTB and OICA to take account of the above comments and to submit an official document to the next session.

B. Other proposals for amendments to Regulation No. 48

Documentation: Informal documents GRE-77-27

21. The expert from Poland, in his capacity of Chair of the Informal Working Group on Visibility, Glare and Levelling (IWG VGL), reported on the IWG activities (GRE-77-27). GRE noted that, at its next session, it should take a decision to extend the mandate of IWG VGL.

VIII. Other Regulations (agenda item 7)

A. Regulation No. 6 (Direction indicators) and Regulation No. 50 (Position, stop, direction indicators lamps for mopeds and motorcycles)

Documentation: ECE/TRANS/WP.29/GRE/76, para. 22 and Annex IV,
Informal document GRE-76-26-Rev.1

22. GRE recalled its previous considerations of the amendment proposals to Regulations Nos. 6 and 50 concerning direction indicators with sequential activation (ECE/TRANS/WP.29/GRE/76, para. 22 and Annex IV) and resumed the discussion on whether or not these proposals would require a new series of amendments and/or transitional provisions. The expert from OICA pointed out that the proposed amendments included also installation requirements which should be moved to Regulation No. 48. To this end, he introduced draft amendments to Regulation No. 48 as well as revised proposals for amendments to Regulations Nos. 6 and 50, including a new series of amendments and transitional provisions for Regulation No. 6 (GRE-76-26-Rev.1). Following an extensive discussion, GRE was of the view that a new series of amendments was not necessary, as the proposed amendments were of clarification nature and did not introduce new requirements. At the same time, GRE agreed that the industry would need a transition period to take into account, in the design process, the amended provisions and decided to introduce them by means of a Supplement with transitional provisions. GRE adopted the proposals for amendments to Regulations Nos. 6, 48 (05 and 06 series of amendments) and 50, as contained in Annex III, and requested the secretariat to submit them to WP.29 and AC.1 for consideration and vote at their June 2017 sessions.

B. Regulation No. 10 (Electromagnetic compatibility)

Documentation: Informal documents GRE-77-21 and GRE-77-28

23. On behalf of the Task Force on Electromagnetic Compatibility (TF EMC), the expert from OICA reported on the activities of TF EMC (GRE-77-21). GRE took note of the latest working draft of Regulation No. 10 (GRE-77-28) and noted that it would be officially submitted to the next session of GRE in October 2017 as a draft Supplement to the 05 series of amendments. The expert pointed out that TF EMC had identified two major changes which would require the consent of GRE: (i) change of the narrow band limit to make it consistent with the CISPR 12 Standard; and (ii) deletion of paragraph 3.1.9. The Chair invited GRE experts to provide feedback on these issues until July 2017.

C. Regulation No. 53 (Installation of lighting and light-signalling devices for L_3 vehicles)

Documentation: ECE/TRANS/WP.29/GRE/2016/35,
Informal documents GRE-77-08, GRE-77-09, GRE-77-17 and GRE-77-19

24. The expert from Japan provided additional explanations to their proposals for the 03 series of amendments to Regulation No. 53 regarding a new requirement for automatic switching from DRL to the headlamp (ECE/TRANS/WP.29/GRE/2016/35 and GRE-77-19). The experts from India and Italy commented on the proposals (GRE-77-09 and GRE-77-17).

25. The experts from Italy, Netherlands and IMMA requested more time to study the proposals and comments. The expert from EC recalled that this matter had already been considered at three consecutive sessions of GRE without a conclusion. He called for the establishment of a task force to tackle the issue. The experts from Japan, India, Italy, Netherlands and IMMA expressed their willingness to participate in the task force. GRE hoped that it would be able to finalize the consideration of the proposals at the next session

without establishing a task force. To this end, the Chair urged all experts to study the proposals and provide their comments prior to the next session.

26. GRE agreed to postpone to the next session consideration of GRE-77-08 by the expert from India.

D. Regulation No. 112 (Headlamps emitting an asymmetrical passing-beam)

27. No issues were considered under this agenda item.

E. Regulation No. 123 (Adaptive front-lighting systems (AFS))

Documentation: ECE/TRANS/WP.29/GRE/2016/28, Informal documents GRE-77-07 and GRE-77-11

28. GRE reverted to a proposal by the expert from GTB which aligns the conformity of production procedures with the other headlamp Regulations and which simplifies the test methods and requirements relating to conformity of production (ECE/TRANS/WP.29/GRE/2016/28, GRE-77-07). GRE agreed with the proposal and decided to forward it to IWG SLR for inclusion into the new RID Regulation (see paras. 7 and 9 above).

IX. Other business (agenda item 8)

A. Amendments to the Convention on Road Traffic (Vienna 1968)

29. The secretariat informed GRE that the Working Party on Road Traffic Safety (WP.1) had continued discussing document ECE/TRANS/WP.1/2015/2/Rev.3 prepared by France, Italy and Laser Europe and containing amendment proposals to Article 32 and Chapter II of Annex 5 on lighting and light-signalling. At its next session in September 2017, WP.1 is expected to finalize its considerations of ECE/TRANS/WP.1/2015/2/Rev.3.

B. Decade of action for road safety 2011-2020

Documentation: ECE/TRANS/270

30. The secretariat informed GRE about various activities of UNECE and of the United Nations Secretary-General's Special Envoy for Road Safety (ECE/TRANS/270, paras. 52-61).

C. Development of the International Whole Vehicle Type Approval

Documentation: ECE/TRANS/WP.29/GRE/2017/7, Informal documents GRE-77-30-Rev.1, GRE-77-31

31. The secretariat briefed GRE on the recent activities of the WP.29 Subgroup on UN Regulation No. 0 (IWVTA) and about the budgetary issues related to the development of an electronic database for the exchange of type approval documentation (DETA). GRB also noted that, in December 2016, the European Union had formally transmitted Revision 3 of

the 1958 Agreement to the United Nations Office for Legal Affairs (OLA) and that its entry into force was scheduled for mid-September 2017.

32. GRE was informed that WP.29, at its November 2016 session, had requested GRE, in cooperation with IWG on IWVTA, to clarify the individual Regulations on lighting and light-signalling devices with a requirement that light sources in these devices should be type approved pursuant to Regulations Nos. 37, 99 or 128 (ECE/TRANS/WP.29/1126, para. 62). In line with this request, the expert from EC proposed collective amendments to device Regulations and to Regulation No. 48 (ECE/TRANS/WP.29/GRE/2017/7, Informal document GRE-77-30-Rev.1). Following an in-depth discussion, GRE adopted the proposals for amendments, as laid down in Annex IV, and requested the secretariat to submit them to WP.29 and AC.1 for consideration and vote at their June 2017 sessions.

33. The expert from EC reiterated the importance of the Unique Identifier (UI) and DETA for the simplified lighting and light-signalling Regulations (GRE-77-31). According to him, the grouping of a number of devices into a single Regulation is not compatible with the traditional approach of using one marking per series of amendments to the Regulation. Thus, he argued in favour of mandatory, rather than optional, use of UI. GRE concurred with his view, but noted that the use of UI is conditional upon the availability of DETA. The expert of GTB also pointed out the unclear interpretation of Schedule 5 to the Revised 1958 Agreement with regard to the obligatory use of UI and DETA.

D. Phantom light and colour washout

34. No information was reported on this topic.

X. New business and late submissions (agenda item 9)

Documentation: Informal document WP.29-171-04

35. GRE took note that, at the March 2017 session of WP.29, the representative of EU expressed concerns (WP.29-171-04) about the legal form of amendments relating to the heat test cycle requirement in Regulation No. 113, as contained in ECE/TRANS/WP.29/2017/39. WP.29 had decided to refer this document back to GRE for further consideration (ECE/TRANS/WP.29/1129, para. 73). GRE agreed that the underlying proposals should be introduced as a new series of amendments and adopted a revised text, as contained in Annex V. The secretariat was requested to submit it to WP.29 and AC.1 for consideration and vote at their June 2017 sessions.

36. GRE took note that Mr. Ad de Visser (IEC) would no longer attend its sessions, due to his approaching retirement. GRE thanked him for his extensive contributions to the GRE work over many years and wished him success in the future.

XI. Direction of future work of GRE (agenda item 10)

37. GRE noted that the status reports of the GTB Working Groups would be presented at the next session.

XII. Provisional agenda for the next session (agenda item 11)

38. GRE decided to keep the same structure of the provisional agenda for the next session.

Annex I

List of informal documents considered during the session

Informal documents GRE-77-...

No.	*(Author) Title*	*Follow-up*
1	(Secretariat) - Updated provisional agenda for the seventy-seventh session of GRE	b
2	(GTB) - Equivalence criteria for LED substitute light source categories as equivalents for corresponding filament light source categories	e
3	(GTB) - Substitute light sources: equivalence reports for C5W, PY21W, and R5W	e
4	(GTB) - Guidelines for introduction and evaluation of LED light source categories intended for forward lighting applications	d
5	(IWG SLR) - Draft New Simplified UN Regulation on Light Signalling Devices (LSD)	c
6/Rev.1	(Czech Republic and Italy) - Proposal for a Supplement to the 06 series of amendments to Regulation No. 48	e
7	(GTB) - Request for guidance	f
8	(India) - Proposal for draft amendments to Regulation No. 53	d
9	(India) - Comments on glare given to oncoming vehicles by motorcycles DRLs at night	d
10/Rev.1	Proposal for a supplement to the 06 series of amendments to Regulation No. 48	e
11	(GTB) - Proposal to amend ECE/TRANS/WP.29/GRE/2016/28	
12	(GTB) - Revision of ECE/TRANS/WP.29/GRE/2017/5	d
13	(GTB) - Revision of ECE/TRANS/WP.29/GRE/2017/6	d
14	(GTB) - Incorporation of LED light sources in the new Regulation for Road Illumination Devices (RID)	d
15	(GTB) - Proposal to introduce requirements for the use of LED substitute light sources in the new Regulation for "Light-signalling devices"	e
16	(GTB) - Updating the requirements of Regulation No. 48 on signalization of light source failure in lamps equipped with multiple light sources	c
17	(Italy) - DRL auto switch in Regulation No. 53	d
18	(Secretariat) - General information and WP.29 highlights	f
19	(Japan) - Additional explanations to ECE/TRANS/WP.29/GRE/2016/35	d
20	(OICA) - Proposal for a Supplement to the 06 series of amendments to Regulation No. 48	e
21	(TF EMC) - Status report	f
22	(GTB) - Introduction of LED substitute light sources into Regulation No. 128	e
23	(Russian Federation) - Modifications to GRE-77-10-Rev.1	e
24	(Russian Federation) - Modifications to GRE-77-06	e
25	(OICA) - Proposal for a consolidated version of ECE/TRANS/WP.29/GRE/2016/33 and GRE-76-17 on Regulation No. 48	d

No.	*(Author) Title*	*Follow-up*
26/Rev.1	Modifications to the adopted amendments to Regulations No. 6 as reproduced in Annex IV to ECE/TRANS/WP.29/GRE/76	f
27	(IWG VGL) - Status report	f
28	(TF EMC) - Proposal for amendments to Regulation No. 10	c
29	(Germany) - Comments on ECE/TRANS/WP.29/GRE/2017/2	d
30/Rev.1	(European Commission) - Revision of ECE/TRANS/WP.29/GRE/2017/7	f
31	(European Commission) -The importance of the Unique Identifier for the simplification of lighting and light-signalling Regulations	f
32	(IWG SLR) - Status update and next steps	f

Notes:

(a) Endorsed or adopted without amendment;

(b) Endorsed or adopted with amendments;

(c) Resume consideration on the basis of a document with an official symbol;

(d) Kept as reference document/continue consideration;

(e) Revised proposal for the next session;

(f) Consideration completed or to be superseded;

(g) Withdrawn.

Annex II

Adopted amendments to the 06 series of amendments to Regulation No. 48 (para. 19 of the report)

...

~~5.11.1.3. When light signalling system operates according to paragraph 6.2.7.6.2.~~

...

6.2.7.6. ~~If daytime running lamps are present and operate according to paragraph 6.19., either~~

~~6.2.7.6.1.~~ The dipped-beam headlamps shall be switched ON and OFF automatically relative to the ambient light conditions (e.g. switch ON during night-time driving conditions, tunnels, etc.) according to the requirements of Annex 13.; ~~or~~

~~6.2.7.6.2. Daytime running lamps operate in conjunction with the lamps listed in paragraph 5.11. where, as a minimum requirement, at least the rear position lamps shall be activated; or~~

~~6.2.7.6.3. Distinctive means are provided to inform the driver that the headlamps, position lamps and if so equipped end outline marker lamps and side marker lamps are not illuminated. Such means are:~~

~~6.2.7.6.3.1. Two distinctly different levels of instrument panel illumination intensity are provided during night and day, indicating to the driver that the dipped beam headlamps shall be switched ON; or~~

~~6.2.7.6.3.2. Non-illuminated indicators and identification of hand controls that are required by Regulation No. 121 to be illuminated when the headlamps are activated; or~~

~~6.2.7.6.3.3. A tell-tale visual, auditory or both, shall be activated only in reduced ambient lighting conditions as defined in Annex 13 to inform the driver that the dipped-beam headlamps should be switched ON. Once the tell-tale is activated, it shall only be extinguished when the dipped-beam headlamps have been switched on or the device which starts and/or stops the engine (propulsion system) is set in a position which makes it impossible for the engine (propulsion system) to operate.~~

...

6.9.8. Tell-tale

Circuit-closed tell-tale mandatory. This tell-tale shall be non-flashing and shall not be required if the instrument panel lighting can only be ~~turned on~~ **switched ON** simultaneously with the front position lamps.

~~This requirement does not apply when light signalling system operates according to paragraph 6.2.7.6.2.~~

...

6.10.8. Tell-tale

Circuit-closed tell-tale mandatory. It shall be combined with that of the front position lamps.

~~This requirement does not apply when light signalling system operates according to paragraph 6.2.7.6.2.~~

…

6.19. Day-time running lamp (Regulation No. 87) [44]

~~[44] The Contracting Parties not applying Regulation No. 87 may prohibit the presence of DRL (as specified in paragraph 5.22.) on the basis of national regulations.~~

…

6.19.7.4. The lamps referred to in paragraph 5.11. may be switched ON when the daytime running lamps are switched ON, ~~except if daytime running lamps are operating according to paragraph 6.2.7.6.2., where at least the rear position lamps shall be activated~~.

Annex III

Adopted amendment proposals to Regulations Nos. 6, 48 and 50 concerning direction indicators with sequential activation (para. 22 of the report)

A. Proposal for Supplement 28 to the 01 series of amendments to Regulation No. 6 (Direction indicators)

Paragraph 1.3., amend to read:

"1.3. *"Direction indicators of different types"* means lamps which differ in such essential respects as:

(a) The trade name or mark;

(b) The characteristics of the optical system (levels of intensity, light distribution angles, category of light source, light source module, etc.);

(c) The category of direction indicator lamps;

(d) The variable intensity control, if any;

(e) The sequential activation of light sources, if any.

Nevertheless, direction indicators capable of being activated in different modes (sequential or not) without any modification of the optical characteristics of the lamp do not constitute *"Direction indicators of different types"*.

A change of the colour of the light source or the colour of any filter does not constitute a change of type."

Paragraph 5.6., amend to read:

"5.6. For direction indicator lamps of categories 1, 1a, 1b, 2a or 2b the flash may be produced by sequential activation of their light sources if the following conditions are met:

(a) Each light source, after its activation, shall remain lit until the end of the ON cycle;

(b) The sequence of activation of the light sources shall produce a signal which proceeds in a uniform progressive manner from inboard towards the outboard edge of the light emitting surface;

(c) It shall be one signal with no interruption and no vertical oscillations (e.g. not more than one change of direction along the vertical axis). The distance between two adjacent/tangential distinct parts of the light emitting surface of the sequential direction indicator shall not exceed 50mm, when measured perpendicularly to the reference axis, instead of the values defined in paragraph 5.7.2. of Regulation 48. These interruptions of the signal shall not create any overlap in the vertical axis between the different parts, from inboard towards the outboard of the vehicle, and shall not be used for any other lighting or light signalling functions;

(d) The variation shall finish no more than 200ms after the beginning of the ON cycle;

(e) The orthogonal projection of the light emitting surfaces of the direction indicator in the direction of the axis of reference shall be circumscribed by a rectangle on a plane normal to the axis of reference and having its longer sides parallel to the H-plane. The ratio of the horizontal to the vertical sides shall not be less than 1.7.

Compliance to the conditions mentioned above shall be verified in flashing mode."

Insert new paragraphs 14.15. to 14.17., to read:

"14.15. As from the official date of entry into force of Supplement 28 to the 01 series of amendments, no Contracting Party applying this Regulation shall refuse to grant approval under this Regulation as amended by this Supplement.

14.16. As from 1 September 2018 Contracting Parties applying this Regulation shall grant approvals only if the type of direction indicator to be approved meets the requirements of this Regulation as amended by Supplement 28 to the 01 series of amendments.

14.17. Contracting Parties applying this Regulation shall not refuse to grant extensions of approval granted prior to the date of entry into force of Supplement 28 to the 01 series of amendments to this Regulation."

B. Proposal for Supplement 11 to the 05 series of amendments to Regulation No. 48 (Installation of lighting and light-signalling devices)

Paragraph 6.5.7., amend to read:

"6.5.7. Electrical connections

Direction-indicator lamps shall switch on independently of the other lamps. All direction-indicator lamps on one side of a vehicle shall be switched on and off by means of one control and shall flash in phase.

On M_1 and N_1 vehicles less than 6 m in length, with an arrangement complying with Paragraph 6.5.5.2. above, the amber side-marker lamps, when mounted, shall also flash at the same frequency (in phase) with the direction indicator lamps.

A direction indicator capable of being activated in different modes (static or sequential), shall not switch between both modes once activated.

If two optional lamps (category 2a or 2b) are installed on vehicles in categories M_2, M_3, N_2, N_3, they shall be operated in the same mode as the other mandatory rear direction indicator lamps (category 2a or 2b); i.e. static or sequential."

Paragraph 6.6.1., amend to read:

"6.6.1. Presence

Mandatory.

The signal shall be given by simultaneous operation of the direction-indicator lamps in accordance with the requirements of paragraph 6.5. above.

All direction indicators of the category 1 (1, 1a, 1b) activated simultaneously shall operate in the same mode; i.e. static or sequential.

All direction indicators of the category 2 (2a, 2b) activated simultaneously shall operate in the same mode; i.e. static or sequential."

C. Proposal for Supplement 9 to the 06 series of amendments to Regulation No. 48 (Installation of lighting and light-signalling devices)

Paragraph 6.5.7., amend to read:

"6.5.7. Electrical connections

Direction-indicator lamps shall switch on independently of the other lamps. All direction-indicator lamps on one side of a vehicle shall be switched on and off by means of one control and shall flash in phase.

On M_1 and N_1 vehicles less than 6 m in length, with an arrangement complying with Paragraph 6.5.5.2. above, the amber side-marker lamps, when mounted, shall also flash at the same frequency (in phase) with the direction indicator lamps.

A direction indicator capable of being activated in different modes (static or sequential), shall not switch between both modes once activated.

If two optional lamps (category 2a or 2b) are installed on vehicles in categories M_2, M_3, N_2, N_3, they shall be operated in the same mode as the other mandatory rear direction indicator lamps (category 2a or 2b); i.e. static or sequential."

Paragraph 6.6.1., amend to read:

"6.6.1. Presence

Mandatory.

The signal shall be given by simultaneous operation of the direction-indicator lamps in accordance with the requirements of paragraph 6.5. above.

All direction indicators of the category 1 (1, 1a, 1b) activated simultaneously shall operate in the same mode; i.e. static or sequential.

All direction indicators of the category 2 (2a, 2b) activated simultaneously shall operate in the same mode; i.e. static or sequential."

D. Proposal for Supplement 20 to Regulation No. 50 (Position, stop, direction indicator lamps for mopeds and motorcycles)

Paragraph 6.8., amend to read:

"6.8. For direction indicator lamps of categories 11, 11a, 11b, 11c or 12 the flash may be produced by sequential activation of their light sources if the following conditions are met:

(a) Each light source, after its activation, shall remain lit until the end of the ON cycle;

(b) The sequence of activation of the light sources shall produce a signal which proceeds in a uniform progressive manner from inboard towards the outboard edge of the light emitting surface;

(c) It shall be one signal with no interruption and no vertical oscillations (e.g. not more than one change of direction along the vertical axis). The distance between two adjacent/tangential distinct parts of the light emitting surface of the sequential direction indicator shall not exceed 50mm, when measured perpendicularly to the reference axis, instead of the values defined in paragraph 5.6.2. of Regulation No. 53. These interruptions of the signal shall not create any overlap in the vertical axis between the different parts, from inboard towards the outboard of the vehicle, and shall not be used for any other lighting or light signalling functions;

(d) The variation shall finish no more than 200 ms after the beginning of the ON cycle;

(e) The orthogonal projection of the light emitting surfaces of the direction indicator in the direction of the axis of reference shall be circumscribed by a rectangle on a plane normal to the axis of reference and having its longer sides parallel to the H-plane. The ratio of the horizontal to the vertical sides shall not be less than 1.7.

Compliance to the conditions mentioned above shall be verified in flashing mode."

Insert new paragraphs 14.3. to 14.5., to read:

"14.3. As from the official date of entry into force of Supplement 20 to the original series of amendments, no Contracting Party applying this Regulation shall refuse to grant approval under this Regulation as amended by this Supplement.

14.4. As from 1 September 2018 Contracting Parties applying this Regulation shall grant approvals only if the type of direction indicator to be approved meets the requirements of this Regulation as amended by Supplement 20 to the original series of amendments.

14.5. Contracting Parties applying this Regulation shall not refuse to grant extensions of approval granted prior to the date of entry into force of Supplement 20 to the original series of amendments to this Regulation."

Annex IV

Adopted amendments on light sources to Regulations Nos. 4, 6, 7, 19, 23, 38, 48, 50, 77, 87, 91, 98, 112, 113, 119 and 123, based on ECE/TRANS/WP.29/GRE/2017/7 (para. 32 of the report)

A. Proposal for Supplement 19 to Regulation No. 4 (Illumination of rear registration plate lamps)

Paragraph 5.6.1., amend to read:

"5.6.1. The illuminating device shall only be equipped with light source(s) approved according to Regulation No. 37 and/or Regulation No. 128, provided that no restriction on the use is made in Regulation No. 37 and its series of amendments in force at the time of application for type approval or in Regulation No. 128 and its series of amendments in force at the time of application for type approval."

B. Proposal for Supplement 29 to the 01 series of amendments to Regulation No. 6 (Direction indicators)

Paragraph 5.5.1., amend to read:

"5.5.1. The device shall only be equipped with light source(s) approved according to Regulation No. 37 and/or Regulation No. 128, provided that no restriction on the use is made in Regulation No. 37 and its series of amendments in force at the time of application for type approval or in Regulation No. 128 and its series of amendments in force at the time of application for type approval."

C. Proposal for Supplement 27 to the 02 series of amendments to Regulation No. 7 (Position, stop and end-outline lamps)

Paragraph 5.9.1., amend to read:

"5.9.1. The device shall only be equipped with light source(s) approved according to Regulation No. 37 and/or Regulation No. 128, provided that no restriction on the use is made in Regulation No. 37 and its series of amendments in force at the time of application for type approval or in Regulation No. 128 and its series of amendments in force at the time of application for type approval."

D. Proposal for Supplement 10 to the 04 series of amendments to Regulation No. 19 (Front fog lamps)

Paragraph 5.6., amend to read:

"5.6. In the case of Class B, the front fog lamp shall only be equipped with one filament light source approved according to Regulation No. 37, even if the filament light source cannot be replaced. Any Regulation No. 37 approved filament light source may be used provided that;

(a) Its objective luminous flux does not exceed 2,000 lumens, and

(b) No restriction on the use is made in Regulation No. 37 and its series of amendments in force at the time of application for type approval.

5.6.1. Even if this filament light source cannot be replaced it shall comply with the requirements in paragraph 5.6. above."

Paragraph 5.7., amend to read:

"5.7. In the case of Class F3, irrespective of whether the light sources can be replaced or not, the front fog lamp shall only be equipped with:

5.7.1. One or more light sources approved according to:

5.7.1.1. Regulation No. 37 and its series of amendments in force at the time of application for type approval, provided that no restriction on their use is made,

5.7.1.2. Or, Regulation No. 99 and its series of amendments in force at the time of application for type approval,

5.7.2. And/or, one or more LED modules where the requirements of Annex 12 to this Regulation shall apply; compliance with these requirements shall be tested."

E. Proposal for Supplement 22 to Regulation No. 23 (Reversing lamps and manoeuvring lamps)

Paragraph 5.4.1., amend to read:

"5.4.1. The reversing lamp or manoeuvring lamp shall only be equipped with light source(s) approved according to Regulation No. 37 and/or Regulation No. 128, provided that no restriction on the use is made in Regulation No. 37 and its series of amendments in force at the time of application for type approval or in Regulation No. 128 and its series of amendments in force at the time of application for type approval."

F. Proposal for Supplement 19 to Regulation No. 38 (Rear fog lamps)

Paragraph 5.5.1., amend to read:

"5.5.1. The rear fog lamp shall only be equipped with light source(s) approved according to Regulation No. 37 and/or Regulation No. 128, provided that no restriction on the use is made in Regulation No. 37 and its series of amendments in force at the time of application for type approval or in Regulation No. 128 and its series of amendments in force at the time of application for type approval."

G. Proposal for Supplement 9 to the 06 series of amendments to Regulation No. 48 (Installation of lighting and light-signalling devices)

Insert a new paragraph 5.30. to read:

"5.30. "All lamps (devices) shall, where applicable, be type approved according to the corresponding device Regulations as specified in the relevant subparagraphs of paragraph 6 of this Regulation when installed on a vehicle."

Insert a new paragraph 5.31. to read:

"5.31. Lamps installed on a vehicle which is approved according to this Regulation and approved for one or more replaceable light source categories according to Regulations Nos. 37, 99 or 128, shall be fitted with light sources approved according to these light source categories only.

This requirement does not concern light source modules, LED modules and non-replaceable light sources, except for when they are required to be approved by the applicable Regulation."

H. Proposal for Supplement 19 to Regulation No. 50 (Position, stop, direction indicator lamps for mopeds and motorcycles)

Paragraph 6.4.1., amend to read:

"6.4.1. The device shall only be equipped with light source(s) approved according to Regulation No. 37 and/or Regulation No. 128, provided that no restriction on the use is made in Regulation No. 37 and its series of amendments in force at the time of application for type approval or in Regulation No. 128 and its series of amendments in force at the time of application for type approval."

I. Proposal for Supplement 18 to Regulation No. 77 (Parking lamps)

Paragraph 6.4.1., amend to read:

"6.4.1. The parking lamp shall only be equipped with light source(s) approved according to Regulation No. 37 and/or Regulation No. 128, provided that no restriction on the use is made in Regulation No. 37 and its series of amendments in force at the time of application for type approval or in Regulation No. 128 and its series of amendments in force at the time of application for type approval."

J. Proposal for Supplement 20 to Regulation No. 87 (Daytime running lamps)

Paragraph 6.5.1., amend to read:

"6.5.1. The daytime running lamp shall only be equipped with light source(s) approved according to Regulation No. 37 and/or Regulation No. 128, provided that no restriction on the use is made in Regulation No. 37 and its series of amendments in force at the time of application for type approval or in Regulation No. 128 and its series of amendments in force at the time of application for type approval."

K. Proposal for Supplement 17 to Regulation No. 91 (Side-marker lamps)

Paragraph 6.4.1., amend to read:

"6.4.1. The side-marker lamp shall only be equipped with light source(s) approved according to Regulation No. 37 and/or Regulation No. 128, provided that no restriction on the use is made in Regulation No. 37 and its series of amendments in force at the time of application for type approval or in Regulation No. 128 and its series of amendments in force at the time of application for type approval."

L. Proposal for Supplement 9 to the 01 series of amendments to Regulation No. 98 (Headlamps with gas-discharge light sources)

Paragraphs 5.8.1. and 5.8.2., amend to read:

"5.8.1. Gas-discharge headlamps shall only be equipped with replaceable gas-discharge light source(s) approved according to Regulation No. 99 and its series of amendments in force at the time of application for type approval.

5.8.2. In the case that one or more (additional) filament light sources are used in the gas-discharge headlamp, the gas-discharge headlamp shall only be equipped with these filament light sources that shall be replaceable and approved according to Regulation No. 37 and its series of amendments in force at the time of application for type approval, provided that no restriction on the use is made in Regulation No. 37 and its series of amendments in force at the time of application for type approval."

M. Proposal for Supplement 8 to the 01 series of amendments to Regulation No. 112 (Headlamps emitting an asymmetrical passing-beam)

Paragraphs 5.3.1., amend to read:

"5.3.1. Only filament light source(s) approved according to Regulation No. 37. Any filament light source covered by Regulation No. 37 may be used, provided that no restriction on the use is made in Regulation No. 37 and its series of amendments in force at the time of application for type approval."

N. Proposal for Supplement 7 to the 01 series of amendments to Regulation No. 113 (Headlamps emitting a symmetrical passing-beam)

Paragraph 5.3.1., amend to read:

"5.3.1. Headlamps shall only be equipped with filament light source(s) approved according to Regulation No. 37 and/or, with (an) LED module(s).

In the case of the use of additional light source(s) and/or additional lighting unit(s) to provide bend lighting, the additional light source(s) shall correspond to and the additional lighting unit(s) shall only be equipped with approved filament light sources covered by Regulation No. 37, provided that no restriction on the use for bending light is made in Regulation No. 37 and its series of amendments in force at the time of application for type approval, and/or LED modules(s)."

Paragraph 5.4.1., amend to read:

"5.4.1. The headlamp shall only be equipped with (a) gas-discharge light source(s) approved according to Regulation No. 99 and/or (an) LED module(s).

In the case of the use of additional light source(s) and/or additional lighting unit(s) to provide bend lighting, the additional light source(s) shall correspond to and the additional lighting unit(s) shall only be equipped with approved filament light source(s) covered by Regulation No. 37, provided that no restriction on the use for bending light is made in Regulation No. 37 and its series of amendments in force at the time of application for type, and/or LED modules(s)."

O. Proposal for Supplement 6 to the 01 series of amendments to Regulation No. 119 (Cornering lamps)

Paragraph 5.4.1., amend to read:

"5.4.1. The cornering lamp shall only be equipped with light source(s) approved according to Regulation No. 37 and/or Regulation No. 128, provided that no restriction on the use is made in Regulation No. 37 and its series of amendments in force at the time of application for type approval or in Regulation No. 128 and its series of amendments in force at the time of application for type approval."

P. Proposal for Supplement 9 to the 01 series of amendments to Regulation No. 123 (Adaptive front-lighting systems (AFS))

Paragraph 5.3.1., amend to read:

"5.3. Replaceable and non-replaceable light sources and LED modules:

5.3.1. The system shall only be equipped with one or a combination of:

5.3.1.1. Light sources that are approved according to Regulation No. 37 and its series of amendments in force at the time of application for type approval and for which no restriction on the use is made;

5.3.1.2. Light sources that are approved according to Regulation No. 99;

5.3.1.3. LED module(s)."

Annex V

Adopted proposal for the 02 series of amendments to Regulation No. 113, based on ECE/TRANS/WP.29/2017/39 (para. 35 of the report)

Paragraph 1.3.1., amend to read:

"1.3.1. The trade name or mark:

(a) Lamps bearing the same trade name or mark but produced by different manufacturers shall be considered as being of different types;

(b) Lamps produced by the same manufacturer differing only by the trade name or mark shall be considered as being of the same type."

Insert a new paragraph 2.4., to read:

"2.4. In the case of a type of lamp differing only by the trade name or mark from a type that has already been approved it shall be sufficient to submit:

2.4.1. A declaration by the lamp manufacturer that the type submitted is identical (except in the trade name or mark) with and has been produced by the same manufacturer as, the type already approved, the latter being identified by its approval code;

2.4.2. Two samples bearing the new trade name or mark or equivalent documentation."

Paragraph 5., amend to read:

"5. General specifications

The requirements contained in sections 5. "General specifications" and 6. "Individual specifications" and in the Annexes referenced in the said sections of Regulations Nos. 53, 74 or 86, and their series of amendments in force at the time of application for the lamp type approval shall apply to this Regulation.

The requirements pertinent to each lamp and to the category/ies of vehicle on which the lamp is intended to be installed shall be applied, where its verification at the moment of lamp type approval is feasible.

5.1. ..."

Paragraph 9.1., amend to read:

"9.1. Headlamps shall be so manufactured as to conform to the type approved under this Regulation.

The compliance with the requirements set forth in paragraphs 6. and 7. above shall be verified as follows:"

Paragraph 9.2. (former), renumber as paragraph 9.1.1.

Paragraph 9.3. (former), renumber as paragraph 9.1.2.

Paragraph 9.4. (former), renumber as paragraph 9.2.

Paragraph 9.5. (former), renumber as paragraph 9.3.

Paragraph 9.6. (former), renumber as paragraph 9.4.

Paragraph 13.5. (former), renumber as paragraph 13.7.

Insert new paragraphs 13.5. and 13.6., to read:

"13.5. As from the official date of entry into force of the 02 series of amendments, no Contracting Party applying this Regulation shall refuse to grant approval under this Regulation as amended by the 02 series of amendments.

13.6. As from 1 September 2019 Contracting Parties applying this Regulation shall grant approvals only if the headlamp meets the requirements of this Regulation as amended by the 02 series of amendments."

Annex 4,

Paragraph 1.2.1.1.2., amend to read:

"1.2.1.1.2. For headlamp with the outside lens in plastic material:

The mixture of water and polluting agent to be applied to the headlamp shall be composed of:

(a) 9 parts by weight of silica sand with a particle size of 0-100 µm,

(b) 1 part by weight of vegetal carbon dust produced from beech wood with a particle size of 0-100 µm,

(c) 0.2 part by weight of NaCMC[3],

(d) 5 parts by weight of sodium chloride (pure at 99 per cent),

(e) 13 parts by weight of distilled water with a conductivity of ≤ 1 mS/m,

(f) 2 ± 1 drops of surfactant.[4]

The mixture shall not be more than 14 days old."

Paragraph 2.2., amend to read:

"2.2. Test results

2.2.1. The result in milliradians (mrad) shall be considered as acceptable for a headlamp producing a passing beam, only when the absolute value $\Delta r_1 = | r_1 - r_{t0} |$ recorded on the headlamp is not more than 1.0 mrad ($\Delta r_1 < 1.0$ mrad) upwards and not more than 2.0 mrad ($\Delta r_1 \leq 2.0$ mrad) downwards.

2.2.2. However, if this value is:

Movement	
Upward	more than 1.0 mrad but not more than 1.5 mrad ($1.0 \text{ mrad} < \Delta r_1 \leq 1.5 \text{ mrad}$)
Downward	more than 2.0 mrad but not more than 3.0 mrad ($2.0 \text{ mrad} < \Delta r_1 \leq 3.0 \text{ mrad}$)

a further sample of a headlamp mounted on a test fixture representative of the correct installation on the vehicle shall be tested as described in paragraph 2.1. after being subjected three consecutive times to the cycle as described below, in order to stabilize the position of mechanical parts of the headlamp:

(a) Operation of the passing beam for one hour (the voltage shall be adjusted as specified in paragraph 1.1.1.2.);

(b) One hour period with the lamp switched off.

After these three cycles, the headlamp type shall be considered as acceptable if the absolute values Δr measured according to paragraph 2.1. above on this further sample meet the requirements in paragraph 2.2.1. above."

Annex 5,

Paragraph 1.4., amend to read:

"1.4. With respect to the verification of the change in vertical position of the "cut-off" line under the influence of heat, the following procedure shall be applied (Classes B, C, D and E headlamps only):

One of the sampled headlamps shall be tested according to the procedure described in paragraph 2.1. of Annex 4 after being subjected three consecutive times to the cycle described in paragraph 2.2.2. of Annex 4.

The headlamp shall be considered as acceptable if Δr does not exceed 1.5 mrad upwards and does not exceed 2.5 mrad downwards.

If this value exceeds 1.5 mrad but is not more than 2.0 mrad upwards or exceeds 2.5 mrad but is not more than 3.0 mrad downwards, a second sample shall be subjected to the test after which the mean of the absolute values recorded on both samples shall not exceed 1.5 mrad upwards and shall not exceed 2.5 mrad downwards."

Annex 7,

Paragraphs 2. to 5., amend to read:

"2. First sampling

In the first sampling four headlamps are selected at random. The first sample of two is marked A, the second sample of two is marked B.

2.1. The conformity of mass-produced headlamps shall not be contested if the deviation of any specimen of samples A and B (all four lamps) is not more than 20 per cent.

In the case, that the deviation of both lamps of sample A is not more than 0 per cent, the measurement can be closed.

2.2. The conformity of mass-produced headlamps shall be contested if the deviation of at least one specimen of samples A or B is more than 20 per cent.

The manufacturer shall be requested to bring his production in line with the requirements (alignment) and a repeated sampling according to paragraph 3. below shall be carried out within two months' time after the notification. The samples A and B shall be retained by the Technical Service until the entire Conformity of Production process is finished.

3. First repeated sampling

A sample of four lamps is selected at random from stock manufactured after alignment.

The first sample of two is marked C, the second sample of two is marked D.

3.1. The conformity of mass-produced headlamps shall not be contested if the deviation of any specimen of samples C and D (all four lamps) is not more than 20 per cent.

In the case, that the deviation of both lamps of sample C is not more than 0 per cent, the measurement can be closed.

3.2. The conformity of mass-produced headlamps shall be contested if the deviation of at least:

3.2.1. One specimen of samples C or D is more than 20 per cent but the deviation of all specimen of these samples is not more than 30 per cent.

The manufacturer shall again be requested to bring his production in line with the requirements (alignment).

A second repeated sampling according to paragraph 4. below shall be carried out within two months' time after the notification. The samples C and D shall be retained by the Technical Service until the entire Conformity of Production process is finished.

3.2.2. One specimen of samples C and D is more than 30 per cent.

In this case the approval shall be withdrawn and paragraph 5. below shall be applied.

4. Second repeated sampling

A sample of four lamps is selected at random from stock manufactured after alignment.

The first sample of two is marked E, the second sample of two is marked F.

4.1. The conformity of mass-produced headlamps shall not be contested if the deviation of any specimen of samples E and F (all four lamps) is not more than 20 per cent.

In the case, that the deviation of both lamps of sample E is not more than 0 per cent, the measurement can be closed.

4.2. The conformity of mass-produced headlamps shall be contested if the deviation of at least one specimen of samples E or F is more than 20 per cent.

In this case the approval shall be withdrawn and paragraph 5. below shall be applied.

5. Approval withdrawn

Approval shall be withdrawn according to paragraph 10. of this Regulation."

Figure 1. shall be deleted.

Annex VI

GRE informal groups

Informal group	*Chair(s)*	*Secretary*
Simplification of the Lighting and Light-Signalling Regulations (SLR)	Mr. Michel Loccufier (Belgium) Phone: +32 474 989 023 E-mail: michel.loccufier@mobilit.fgov.be	Mr. Davide Puglisi (GTB) Phone: +39 011 562 11 49 Fax: +39 011 53 21 43 E-mail: secretary@gtb-lighting.org
Visibility, Glare and Levelling (VGL)	Mr. Tomasz Targosinski (Poland) Phone: +48 22 4385 157 Fax: + 48 22 4385 401 E-mail: tomasz.targosinski@its.waw.pl	Mrs. Françoise Silvani (OICA) Fax: +33 1 76 86 92 89 E-mail: francoise.silvani@renault.com